

ทำนายเหตุ

Project Naïve Bayes

TU155

Start



INPUT

1 CAP DIAMETER	2 CAP SHAPE
3 GILL ATTACHMENT	4 GILL COLOR
5 STEM HEIGHT	6 STEM WIDTH
7 STEM COLOR	8 SEASON

Data description

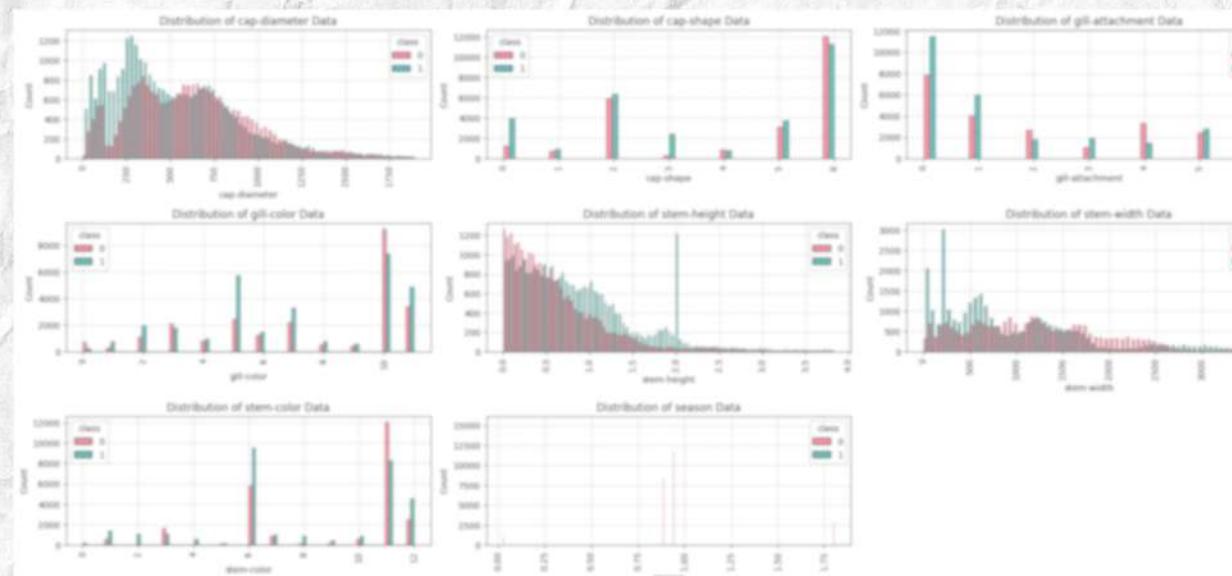
Mushroom Dataset 54,062 ชุด
มี feature ทั้งหมด 9 columns

PREDICT

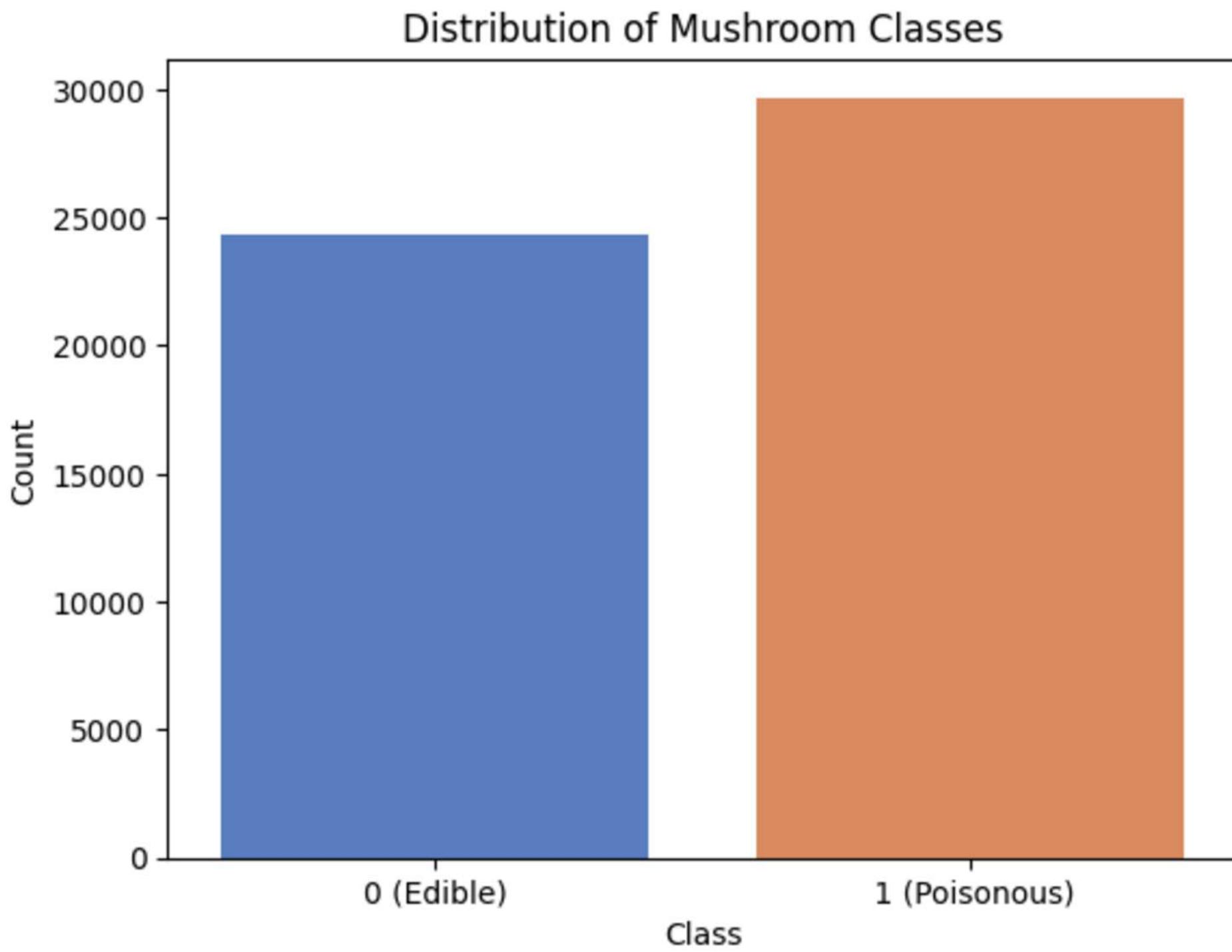
9 CLASS

ATTRIBUTE ที่เราอยากจะทำนาย
CLASS สามารถรับประทานได้
หรือไม่ได้ (เป็นเห็ดพิษ)

EDA

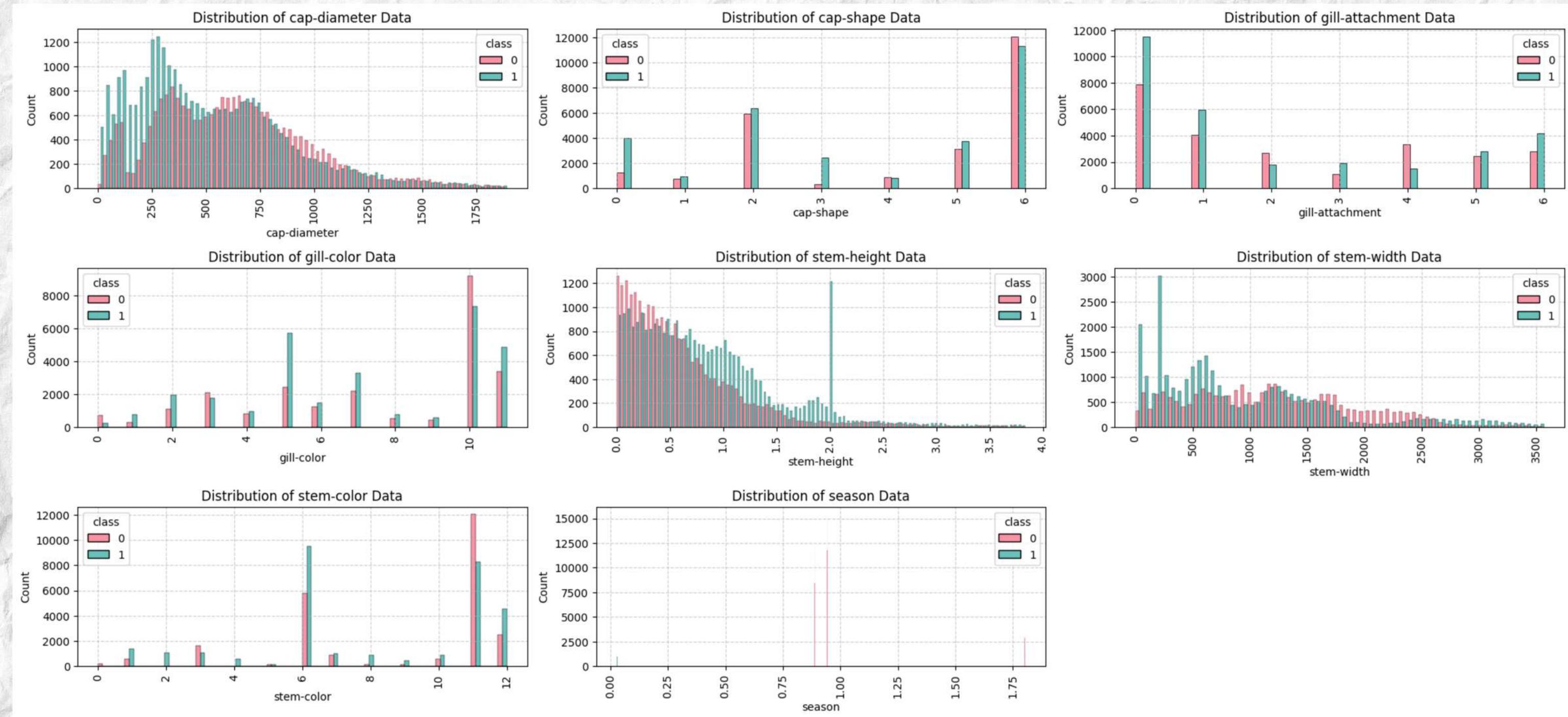


	cap-diameter	cap-shape	gill-attachment	gill-color	stem-height	stem-width	stem-color	season	class
0	1372	2		2	10	3.807467	1545	11	1.804273
1	1461	2		2	10	3.807467	1557	11	1.804273
2	1371	2		2	10	3.612496	1566	11	1.804273
3	1261	6		2	10	3.787572	1566	11	1.804273
4	1305	6		2	10	3.711971	1464	11	0.943195



ແຜນງົມແລດວກວານກະຈາຍຕັບອັງ Mushroom Classes





ແພນງຸມແສດງການກະຈາຍຕັ້ງຂອງເຕີເຊີ: Features



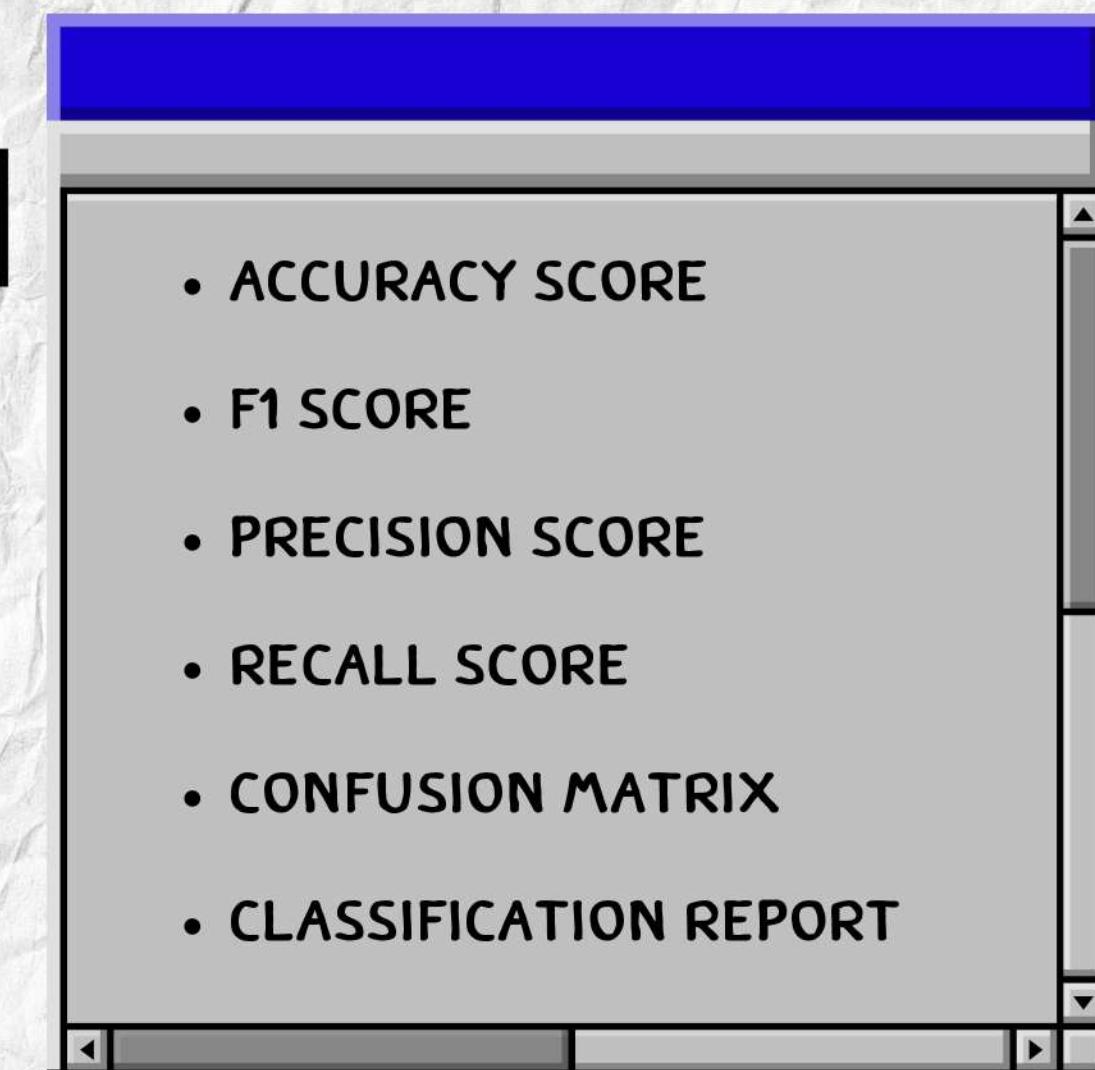
BUILD MODEL



NAIVE BAYES

METRICS

OTHER



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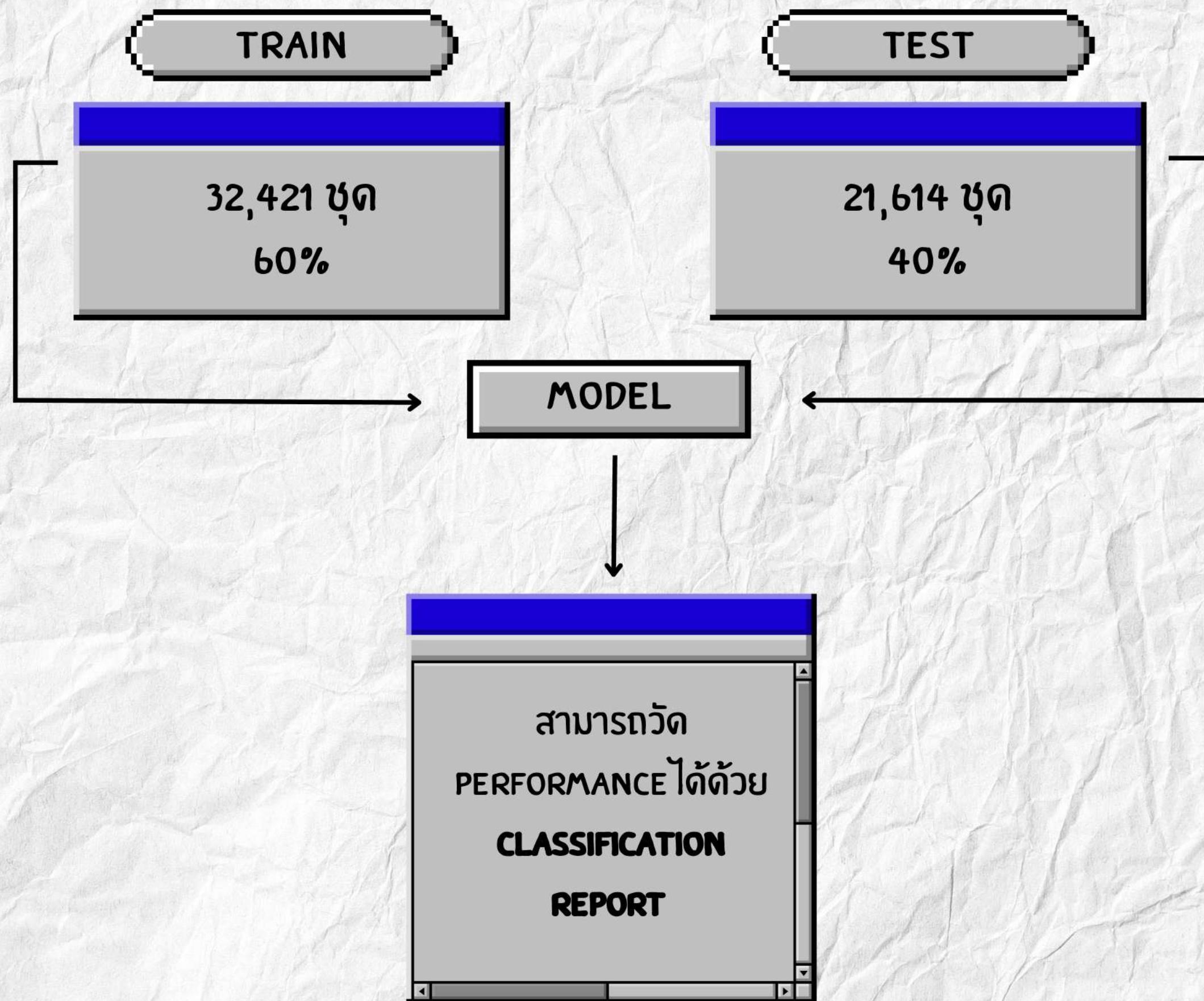
place

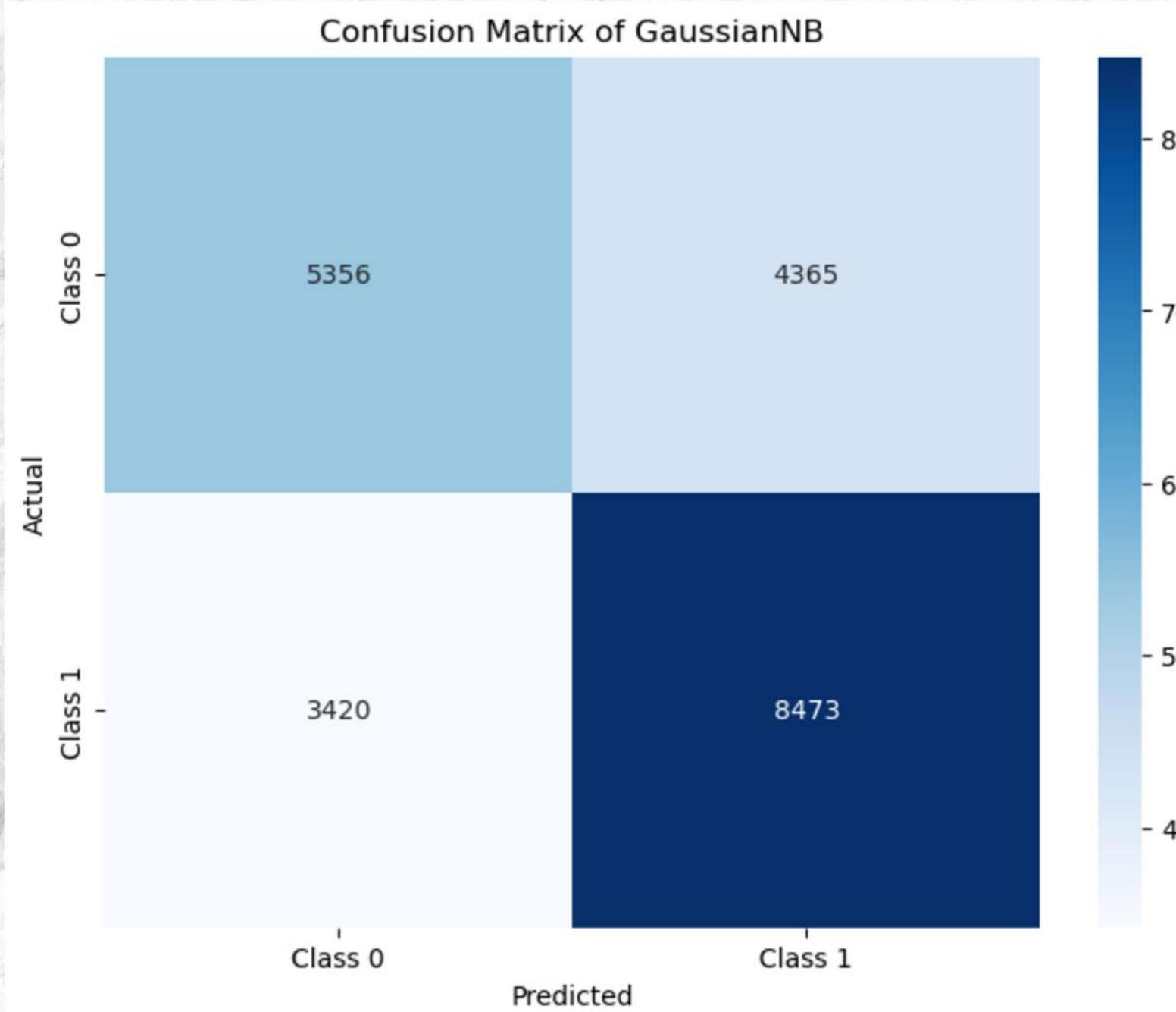
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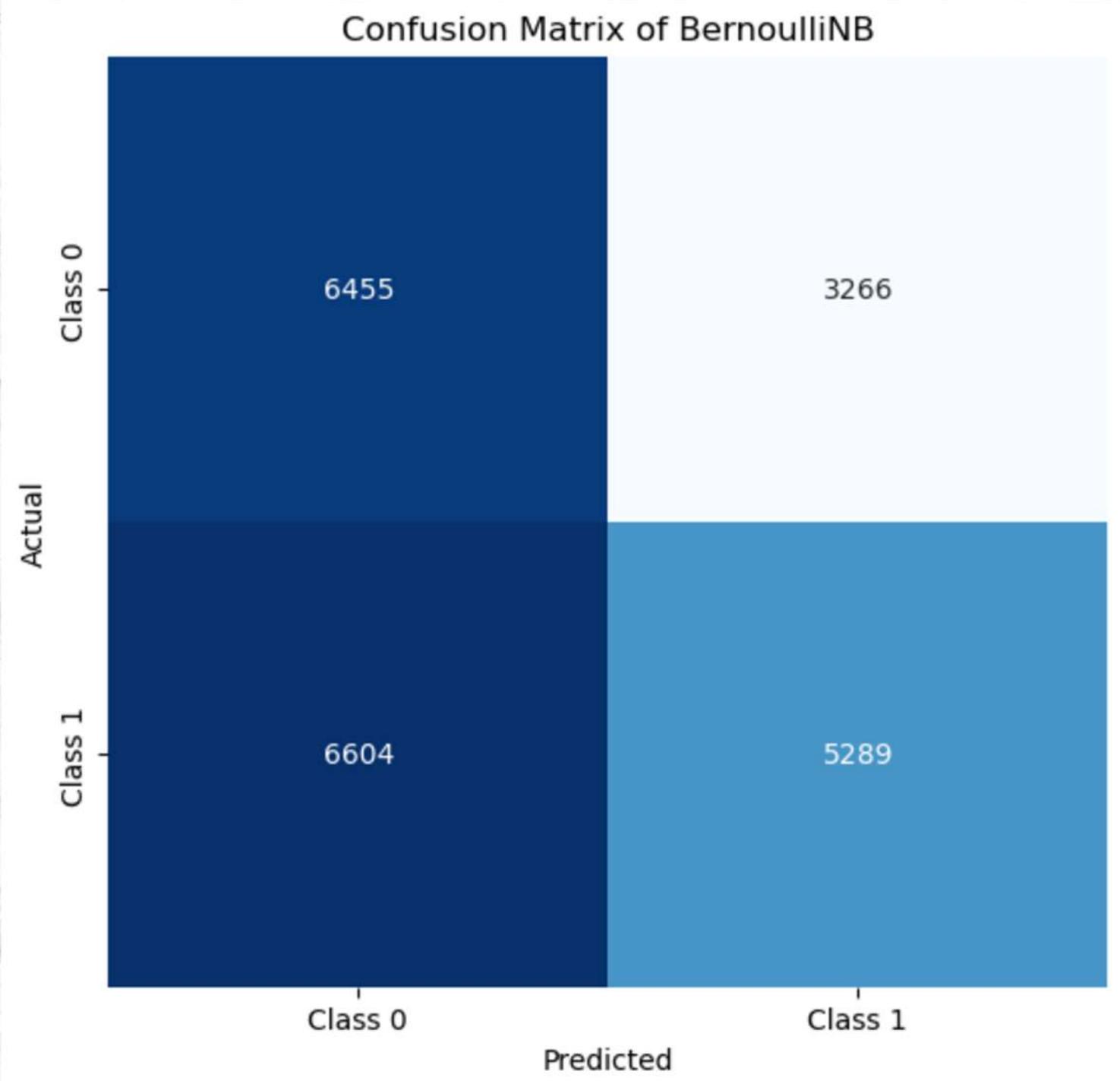




GAUSSIAN

64%

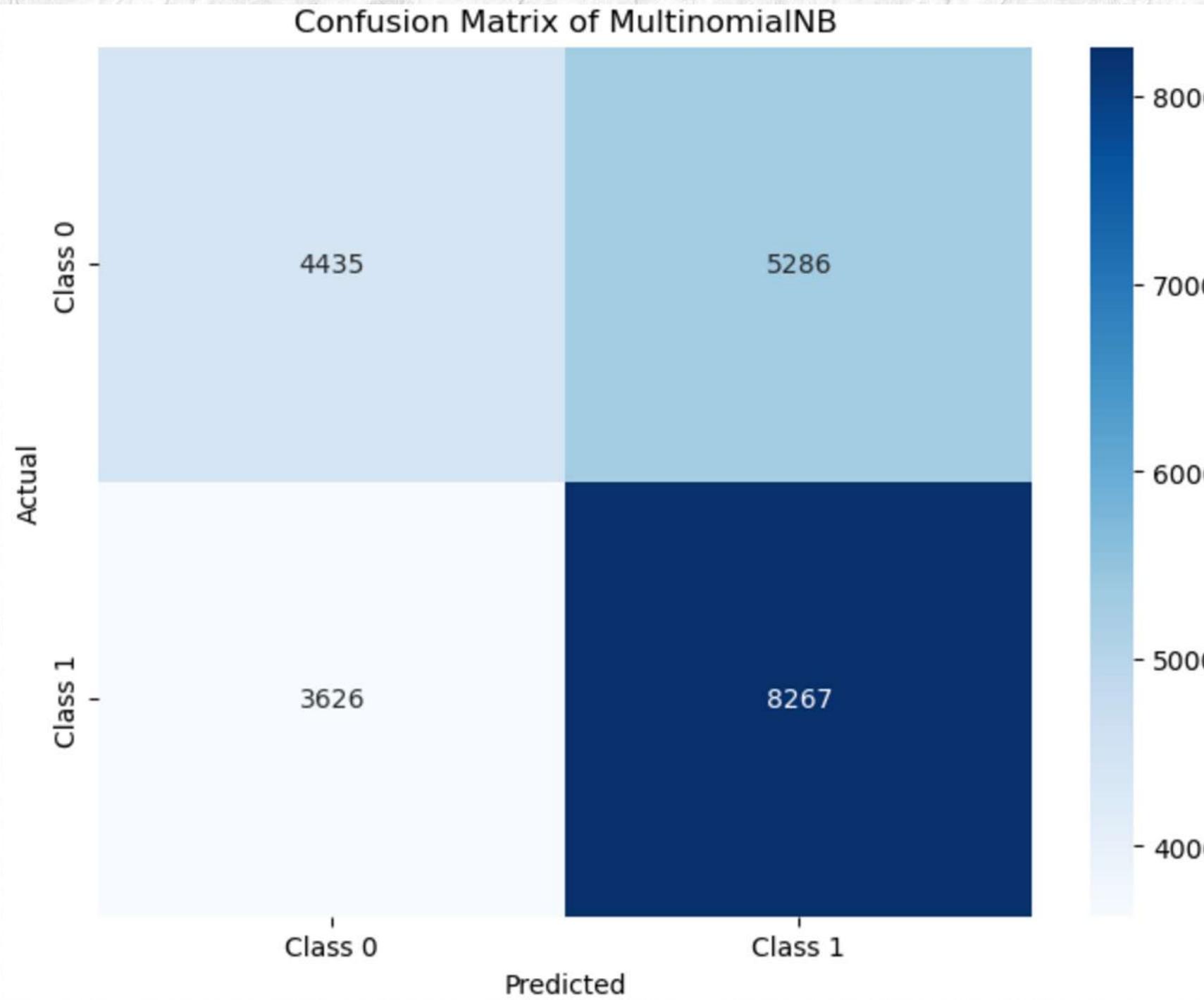
	precision	recall	f1-score	support
0	0.61	0.55	0.58	9721
1	0.66	0.71	0.69	11893
accuracy			0.64	21614
macro avg	0.64	0.63	0.63	21614
weighted avg	0.64	0.64	0.64	21614



BERNOULLI

56%

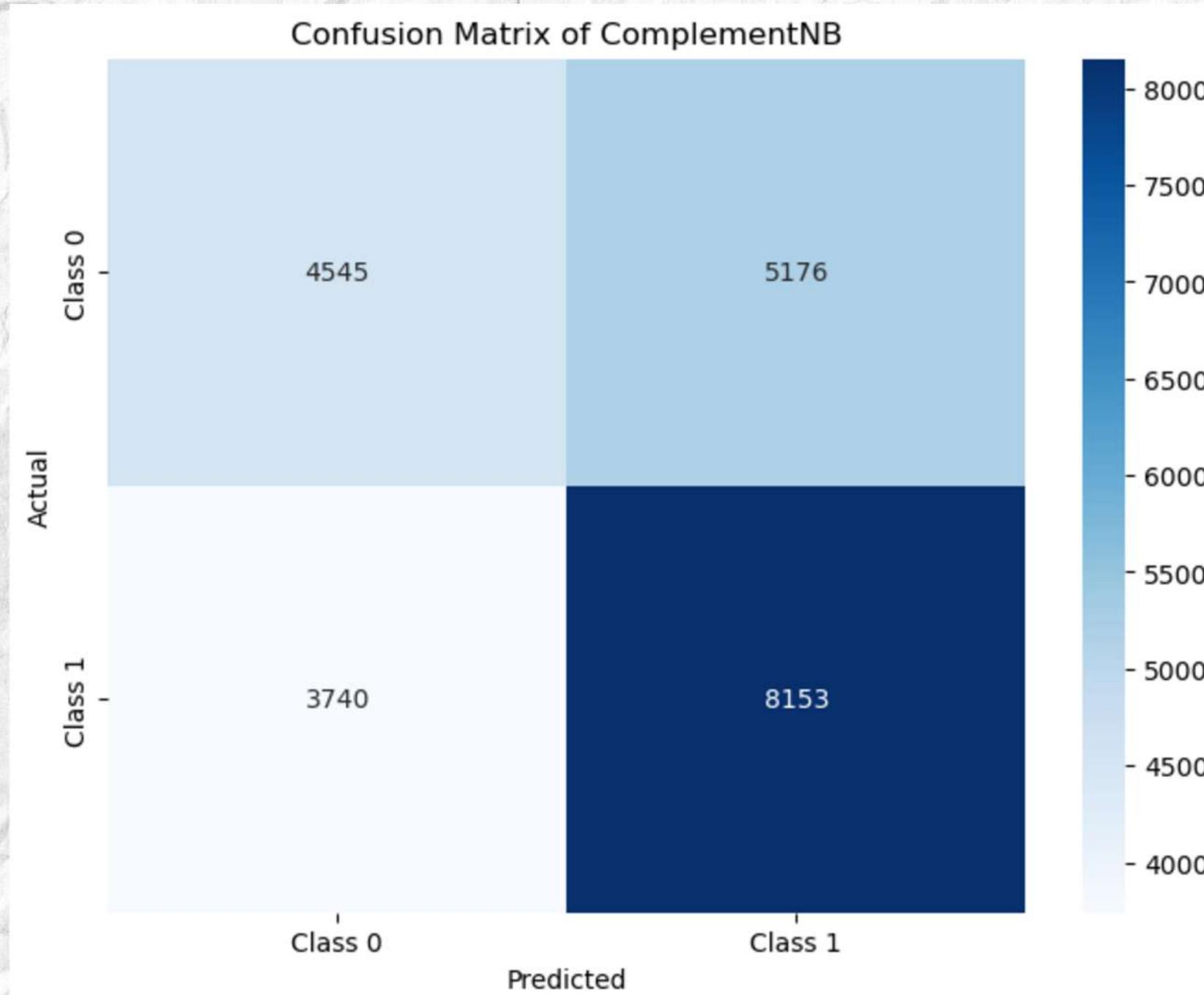
	precision	recall	f1-score	support
0	0.49	0.66	0.57	9721
1	0.62	0.44	0.52	11893
accuracy			0.54	21614
macro avg	0.56	0.55	0.54	21614
weighted avg	0.56	0.54	0.54	21614



MULTINOMIAL

59%

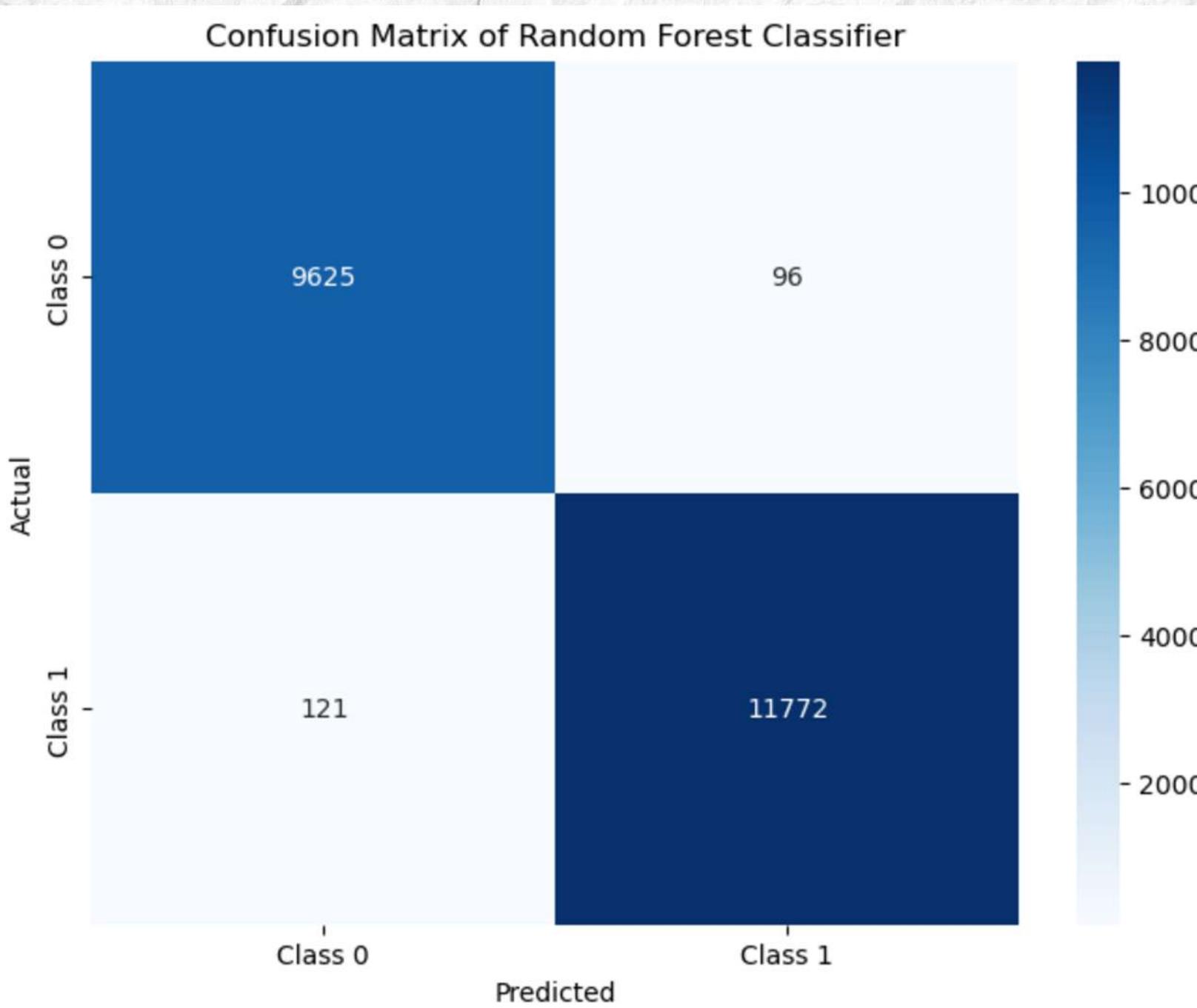
	precision	recall	f1-score	support
0	0.55	0.46	0.50	9721
1	0.61	0.70	0.65	11893
accuracy			0.59	21614
macro avg	0.58	0.58	0.57	21614
weighted avg	0.58	0.59	0.58	21614



COMPLEMENT

59%

	precision	recall	f1-score	support
0	0.55	0.47	0.50	9721
1	0.61	0.69	0.65	11893
accuracy			0.59	21614
macro avg	0.58	0.58	0.58	21614
weighted avg	0.58	0.59	0.58	21614



RANDOM FOREST CLASSIFIER

99%

	precision	recall	f1-score	support
0	0.99	0.99	0.99	9721
1	0.99	0.99	0.99	11893
accuracy			0.99	21614
macro avg	0.99	0.99	0.99	21614
weighted avg	0.99	0.99	0.99	21614

ตารางแสดงค่าของความแม่นยำและความน่าจะเป็น

Model	Accuracy	Probability
RANDOM FOREST CLASSIFIER	0.99	1.00
GAUSSIANNB	0.64	0.63
MULTINOMIALNB	0.59	0.81
COMPLEMENTNB	0.59	0.84
BERNOULLINB	0.54	0.571



